This listing of the claims will replace all prior versions and listings of the claims in this application.

In the Claims:

Claims 1-17 (Canceled).

18. (Previously Presented) A process of making a conjugate that comprises an erythropoietin glycoprotein having an N-terminal α-amino group and one poly(ethylene glycol), said erythropoietin glycoprotein being selected from the group consisting of human erythropoietin, analogs thereof that have from 1 to 6 additional sites for glycosylation, and human erythropoietin having at least one glycosylation site that is rearranged, and being covalently linked to one poly(ethylene glycol) group of the formula

$$-CO-(CH_2)_x-(OCH_2CH_2)_m-OR,$$

wherein the -CO of the poly(ethylene glycol) group forms an amide bond with the N-terminal α -amino group of the erythropoietin glycoprotein;
R is lower alkyl;
x is 2 or 3; and
m is from about 450 to about 1350;
said process comprising :

a) expressing and fermenting a recombinant EPO protein that has an N-terminal peptidic extension that includes a proteolytic cleavage sequence,
b) protecting the ε-amino groups,
c) proteolytically cleaving the N-terminal peptidic extension,
d) pegylating the N-terminal α-amino group, and
e) deprotecting the ε-amino groups of the EPO glycoprotein.

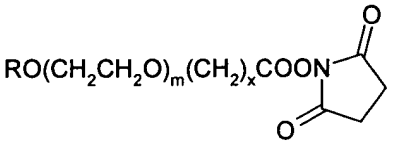
19. (Original) The process of claim 18 wherein the fermentation in step a) is serum free.

20. (Original) The process of claim 18 wherein any one of steps a)-e) is followed by a purification step.

21. (Previously presented) The process of claim 18 wherein the recombinant EPO comprises a sequence selected from the group consisting of the amino acid sequences SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO 4: and SEQ ID NO: 5.

22. (Original) The process according to claim 18 wherein in step b) the ε-amino groups are protected by citraconylation.

23. (Original) The process of claim 18 wherein the N-terminal α-amino group in step d) is pegylated with a group



(II)

wherein
R is lower alkyl;
x is 2 or 3; and
m is from about 450 to about 1350.

24. (Canceled) ~~An erythropoietin glycoprotein comprising an amino acid sequence selected from SEQ ID NO:1 and SEQ ID NO:2 and having an N-terminal peptidic extension that is a proteolytic cleavage site selected from APPRIEGR, APP or APPGAAHY.~~

25. (Canceled) ~~The erythropoietin gylcoprotein of claim 24 which also comprises an N-terminal histidine purification tag.~~

26. (Previously presented) The process of claim 23 wherein in the compound of formula II R is methyl, x is 3, m is from about 650 to about 750, and the pegylation reaction in step d) is performed at a molar ratio of 1:5 (protected EPO of step b to reagent of formula II).

27. (Previously presented) The process of claim 26 wherein in step b) the ε-amino groups are protected by citraconylation.

28. (Previously presented) The process of claim 27, wherein in step e) deprotection of the ε-amino groups is achieved by stirring the product of step d) at a pH of 2.5 for 5 h at ambient temperature.

29. (Previously presented) The process of claim 28 wherein step e) is followed by purification step using chromatography.

30. (Previously presented) The process of claim 29 wherein the chromatography is carried out on an SP-Sepharose column.